

1 **ABSTRACT**

2 A multimedia object retrieval and annotation system integrates an  
3 annotation process with object retrieval and relevance feedback processes. The  
4 annotation process annotates multimedia objects, such as digital images, with  
5 semantically relevant keywords. The annotation process is performed in  
6 background, hidden from the user, as the user conducts normal searches. The  
7 annotation process is "semi-automatic" in that it utilizes both keyword-based  
8 information retrieval and content-based image retrieval techniques to  
9 automatically search for multimedia objects, and then encourages users to provide  
10 feedback on the retrieved objects. The user identifies objects as either relevant or  
11 irrelevant to the query keywords and based on this feedback, the system  
12 automatically annotates the objects with semantically relevant keywords and/or  
13 updates associations between the keywords and objects. As the retrieval-  
14 feedback-annotation cycle is repeated, the annotation coverage and accuracy of  
15 future searches continues to improve.

16  
17  
18  
19  
20  
21  
22  
23  
24  
25